

A Charge Control Circuit

ABSTRACT

A charge control circuit includes a switch circuit having an input node configured to receive a reference voltage at a selected voltage level and configured to respond to a charge signal to pre-charge the input node with a pulse charge at the selected voltage level. The switch circuit further includes a single switch configured to respond to an enable signal having a duration shorter than a mechanical time constant of a micro-electro mechanical device (MEM device) having a variable capacitor with first and second plates and wherein the single switch is coupled to the MEM device to apply the selected voltage level across first and second plates of a variable capacitor of the MEM device for the duration to thereby cause the pulse charge to accumulate on the variable capacitor.